Appendix B

Prefinal Inspection Report for the Central Facilities Area-04 Mercury Pond Remedial Action

Appendix B

Prefinal Inspection Report for the Central Facilities Area-04 Mercury Pond Remedial Action

B-1. PREFINAL INSPECTION CHECKLIST

The completed "Draft Prefinal Inspection Checklist" for the remedial action at the CFA-04 mercury pond is included in Attachment B1.

B-2. DISCUSSION OF FINDINGS

The prefinal inspection occurred on October 16, 2003. A summary of the prefinal inspection is included in Attachment B2. Three action items were identified:

- Provide survey results on area in Zone 6 near Sampling Point 6-3. The Environmental Protection Agency (EPA) did not believe that the excavated area is 10 ft deep or at basalt. The EPA said this is a quality assurance check on how the excavation went.

- E-mail photos to the EPA and the Idaho Department of Environmental Quality (DEQ) that were taken during the inspection.

- Provide a printout of the last calibration of the field Atomic Absorption (AA) instrument.

In conference calls with the Agencies on October 22, 2003, the EPA and DEQ identified the following findings:

1. Soil was not removed to the extent practicable at Sampling Point 6-3 (Inspection Checklist Item 4) from on top of the basalt. Soil had been removed from this deep narrow area with a large backhoe that had 10-in. teeth to the extent that the backhoe was capable. The EPA maintained that hand-removal should be used in this area in order to remove the soil to the extent practicable.

2. Ten percent of the field samples taken, instead of 10% of the minimum number of samples required, should have been collected and sent to an off-site laboratory for a quality control analysis (Inspection Checklist Item 9). Ten percent of the minimum number of quality control samples required (five samples based on a minimum of 45 samples) had already been collected and sent off-site for analysis. It was agreed that the random collection of samples identified in the *Field Sampling Plan for the Central Facilities Area-04 Pond Remedial Action* (DOE-ID 2003) (Field Sampling Plan) should be performed instead of what is prescribed in the *Quality Assurance Project Plan for Waste Area Groups 1, 2, 3, 4, 5, 6, 7, 10, and Inactive Sites* (DOE-ID 2002) (QAPjP). The QAPjP (DOE-ID 2002) requires collecting three quality control samples that are above the action level. The collection of samples per the QAPjP (DOE-ID 2002) could not be performed since soil from previous screening sampling had been disposed of. In addition, a very small fraction (3 out of 74 samples) of the previous screening samples were above the final remediation goal (FRG) or action level. One quality check sample above the FRG had already been taken.

B-3. CORRECTIVE ACTION

The information in Items 1–3 above was provided to the EPA and DEQ on October 20, 2003 (see Attachment B3). In a conference call on October 22, 2003, the following corrective actions were agreed to:

1. Excavate further at Sampling Point 6-3 in Zone 6 with hand methods if necessary. Take pictures of the excavated area before and after the excavation. Collect and analyze a field sample at this location after the additional soil is removed (Inspection Checklist Item 4).

2. Collect three more quality control samples at random as specified in the Field Sampling Plan (DOE-ID 2003) with a split analyzed with field instrumentation and the other split sent off-site for analysis (Inspection Checklist Item 9).

The following corrective actions were performed:

1. On October 23, 2003, an additional 4 yd^3 of soil were excavated from Sampling Point 6-3. On October 27, 2003, three additional samples were collected at random locations (C-6, C-7, C-8) with a split analyzed with field instrumentation and the other split sent off-site for laboratory analysis.

2. On October 28, Bechtel BWXT Idaho, LLC (BBWI) decided to remove an additional 35.9 yd^3 from Sampling Point 6-3 in order to better expose the basalt (Inspection Checklist Item 3). Pictures were taken before the excavation on October 23 and after this final excavation (see Attachment B4). On October 27, 2003, a field sample was collected at Sample Point 6-3 on top of the basalt and analyzed (52 mg/kg mercury).

3. On October 27, 2003, C-8 was resampled in order to get a true 0-6-in. sample instead of a surface sample with a split analyzed with field instrumentation and the other split sent off-site for analysis (Checklist Item 9). See Attachment B1.1 of Attachment B1 for the final analytical results based on field analysis and the recalculated 95% UCL (Inspection Checklist Item 8).

B-4. REFERENCES

DOE-ID, 2002, *Quality Assurance Project Plan for Waste Area Groups 1, 2, 3, 4, 5, 6, 7, 10, and Inactive Sites*, DOE/ID-10587, Rev. 7, September 2002.

DOE-ID, 2003, *Field Sampling Plan for the Central Facilities Area-04 Pond Remedial Action*, DOE/ID-11024, Rev. 0, February 2003.

B-5. ATTACHMENTS

- Attachment B1 Prefinal Inspection Checklist
  - Attachment B1.1 of Attachment B1 – CFA-04 Confirmation Sampling Summary
  - Attachment B1.2 of Attachment B1 – INEEL Waste Determination and Disposition Forms
- Attachment B2 Summary of CFA-04 Prefinal Inspection

- Attachment B3 Responses to EPA/DEQ Requests for Information during the Prefinal Inspection
  - Attachment B3.1 - Logbook Entry
  - Attachment B3.2 - Prefinal Inspection Pictures
  - Attachment B3.3 - Field Analyzer Calibration
- Attachment B4 Pictures of Sample Point 6-3 excavation
  - Attachment B4.1 - Pictures of Sample Point 6-3 prior to excavation
  - Attachment B4.2 - Pictures of Sample Point 6-3 after excavation

Attachment B1

Finalized Prefinal Inspection Checklist

Table B1-1. Prefinal inspection checklist

Inspection Item	Reference	Satisfactory	Unsatisfactory	Comments
1. CFA-04 construction site cleared of vegetation if required to mitigate potential fire hazard	Work Plan Section 5.3.4[a]	X		Done.-
2. Asbestos-containing material excavated, removed, and disposed of in accordance with the INEEL Waste Acceptance Criteria [b]	Work Plan Section 5.3.6 [a]	X		Done.
3. Mercury-contaminated soil with total mercury concentrations above 8.4 mg/kg and TCLP mercury concentrations less than 0.2 mg/L excavated and hauled to the CFA landfill for disposal.	Work Plan Section 5.3.7 [a]	X		Done.
4. Low-level mercury-contaminated soil with total mercury concentrations greater than 8.4 mg/kg and TCLP mercury concentrations less than 0.2 mg/L and radionuclide concentrations exceeding the INEEL Waste Acceptance Criteria [b] excavated and hauled to the ICDF for disposal.	Work Plan Section 5.3.7 [a]	X		Done. The final additional soil was satisfactorily excavated at Sampling Point 6-3 per a prefinal inspection finding on 10-16-03.
5. Low-level TCLP mercury-contaminated soil with total mercury concentrations greater than 8.4 mg/kg and TCLP concentrations greater than 0.2 mg/L excavated and hauled to the ICDF for disposal at the ICDF.	Work Plan Section 5.3.7 [a]	X		Done.
6. Calcine-filled bottles that exceed 260 mg/kg and 0.2 mg/L TCLP mercury packaged and shipped off-site for treatment and disposal.	Work Plan Section 5.3.7 [a]	NA	NA	Not applicable
7. Field Samples collected and analyzed to direct excavation and to be used for confirmation sampling	Field Sampling Plan Section 4.2.2[c]	X		Done. See Attachment B1.1 for individual field sampling results – includes field analytical results of quality control samples (C-1 through C-8) with samples C-5 through C-8 added per a pre-final inspection finding on 10-16-03.
8. 95% UCL calculated using field sampling data and compared to the final remediation goal	Field Sampling Plan 3.1.7.1 [c]	X		Done. See Attachment B1.1 – includes field analytical results of quality control samples (C-1 through C-8) with samples C-5 through C-8 added per a pre-final inspection finding on 10-16-03.
9. Quality control samples collected and analyzed at an off-site laboratory	Field Sampling Plan Section 4.2.2 [c]	X		Done. Samples sent to laboratory – three additional samples were satisfactorily taken per a prefinal inspection finding on 10-16-03
10. Off-site laboratory analytical data received, validated and entered into ERIS.	Field Sampling Plan [c]	X		Done. See Appendix C for sampling results.
11. Validated analytical data transmitted to DOE Idaho, DEQ, and EPA	FFA/CO[d]	X		Done. See letter ICDF-05-04 CCN #47752, dated 02-03-04.

Table B1-1. (continued).

Inspection Item	Reference	Satisfactory	Unsatisfactory	Comments
12. Hazardous waste designated and characterized using process knowledge, historical analytical data, and/or analytical data generated during the course of remediation activities.	Work Plan Appendix E [a]	X		Done. See attached INEEL Waste Determination & Disposition Forms (Attachment B1.2)
13. Fence removed	Work Plan Section 5.3.3 [a]	X		Done.
14. Excavation backfilled to excavation grade and contour smoothed.	Work Plan Section 5.3.11 Appendix B Section 02200-Earthwork [a]	X		Done. See photographic record, Appendix D.
15. Reclamation seeding with wood chip mulch performed in all disturbed areas.	Work Plan Section 5.3.11 Appendix B Section 02486-Revegetation [a]	X		Done. See photographic record, Appendix D.
16. Certified seed mix used in reclamation seeding.	Work Plan Appendix B Section 01005-Summary of Work, Vendor Data Schedule [a]	X		Done.
17. Soil analyzed to determine appropriate fertilizer mix and applicable fertilizer applied.	Work Plan Appendix B Section 01005-Summary of Work, Vendor Data Schedule [a]	X		Done.
18. Equipment decontaminated and contaminated materials properly stored and disposed of.	Work Plan Appendix B Section 02200-Earthwork [a]	X		Done.
19. Equipment removed from the site. Decontamination pads and temporary barriers and signs removed and dispositioned appropriately.	Work Plan Section 5.3.12 [a]	X		Done.
20. Topographical survey completed	Work Plan Appendix B Section 01005-Summary of Work, 01051-Construction Surveying and Staking, Vendor Data Schedule [a]	X		Done. See Appendix G.
21. As-built drawings depicting final construction completed.	Work Plan Appendix B Section 01005-Summary of Work, Vendor Data Schedule [a]	X		Done. See Appendix G.

Table B1-1. (continued).

Inspection Item	Reference	Satisfactory	Unsatisfactory	Comments

a. DOE-ID, 2003, *Waste Area Group 4 Remedial Design/Remedial Action Work Plan, CFA-04 Pond Mercury-Contaminated Soils, Operable Unit 4-13,* DOE/ID-11028, Rev. 0, February 2003.
b. DOE-ID, 2003, *Idaho National Engineering and Environmental Laboratory Waste Acceptance Criteria,* DOE/ID-01-10381, Rev. 18, May 2003.
c. DOE-ID, 2003, *Field Sampling Plan for the Central Facilities Area-04 Pond Remedial Action,* DOE/ID-11024, Rev. 0, February 2003.
d. DOE-ID, 1991, *Federal Facility Agreement and Consent Order for the Idaho National Engineering Laboratory,* Administrative Docket No. 1088-06-29-120, U.S. Department of Energy Idaho Field Office; U.S. Environmental Protection Agency, Region 10; Idaho Department of Health and Welfare, December 4, 1991.

CFA = Central Facilities Area
DEQ = Idaho Department of Environmental Quality
EPA = Environmental Protection Agency
ERIS = Environmental Restoration Information System
ICDF = INEEL CERCLA Disposal Facility
INEEL = Idaho National Engineering and Environmental Laboratory
TCLP = toxicity characteristic leaching procedure
UCL = upper confidence limit

Attachment B1.1

CFA-04 Confirmation Sampling Summary

B1.1 CFA-04 CONFIRMATION SAMPLING SUMMARY

Field samples were collected during the remedial activities at the CFA-04 mercury pond. The field samples were collected at random locations at a depth ranging from 0 to 6 in.. The samples were analyzed for total mercury on-Site using an atomic absorption spectrometer. After collection and analysis, the 95% upper confidence level on the mean was calculated, and the data were tested for normality. Normality was established through use of the Shapiro-Wilk (SW) statistic and its associated p-value for the non-transformed transformed data using two methods: 1) natural logarithm transform, and 2) square root transform. Because the natural log and square root cannot handle negative values, 0.11 was added to every data point. This does not change the testing of normality. The data set with the highest S-W statistic and lowest p-value was then selected as the data set for further analysis. While they do not achieve strict normality, there is a marked improvement when using the natural log transformation. The slight departure from normality has little effect on the analysis results. The S-W statistics and p-values are in the attached spreadsheets (Tables B1.1-1 and B1.1-2).

The results of the statistical analyses are that the 95% UCL for the "with pipe" data is 0.425 and for the "without pipe" data is 0.377. The transformed value of the final remediation goal is *In*(8.4+0.11) = 2.14. Therefore, at a 95% confidence level, it can be concluded that the average mercury contamination "with" or "without" the pipe is less than the final remediation goal.

Table B1.1-1. Mercury data without sample from under pipe.

Location	conc	conc+.11	ln(conc+.11)	sqrt(conc+.11)
ZONE 11-13	5.24	5.35	1.677	2.313
ZONE 11-14	6.10	6.21	1.826	2.492
ZONE 11-15	0.14	0.25	-1.382	0.501
ZONE 11-16	0.61	0.72	-0.326	0.850
ZONE 11-17	5.49	5.60	1.723	2.366
ZONE 11-18	8.03	8.14	2.097	2.853
ZONE 11-19	0.19	0.30	-1.201	0.549
ZONE 11-20	1.86	1.97	0.678	1.404
ZONE 12-1	30.00	30.11	3.405	5.487
ZONE 12-2	0.48	0.59	-0.531	0.767
ZONE 12-3	7.99	8.10	2.092	2.846
ZONE 12-4	8.15	8.26	2.111	2.874
ZONE 12-5	5.82	5.93	1.780	2.435
ZONE 12-6	2.76	2.87	1.054	1.694
ZONE 13-1	0.30	0.41	-0.892	0.640
ZONE 13-2	1.18	1.29	0.255	1.136
ZONE 13-3	4.07	4.18	1.430	2.045
ZONE 13-4	0.85	0.96	-0.046	0.977
ZONE 13-5	4.92	5.03	1.615	2.243
ZONE 13-6	2.10	2.21	0.793	1.487
ZONE 13-7	2.95	3.06	1.118	1.749

	SW statistic	p-value
conc+.11	0.44271	<0.00001
ln(conc+.11)	0.95091	0.00483
sqrt(conc.+.11)	0.80723	<0.00001

mean for ln(conc+.11)	0.016
std for ln(conc+.11)	1.924
ucl95 for ln(conc+.11)	0.377

Table B1.1-1. (continued).

Location	conc	conc+.11	ln(conc+.11)	sqrt(conc+.11)
ZONE 14-1	4.21	4.32	1.463	2.078
ZONE 14-10	0.12	0.23	-1.492	0.474
ZONE 14-11	6.60	6.71	1.904	2.590
ZONE 14-2	2.82	2.93	1.075	1.712
ZONE 14-3	2.96	3.07	1.122	1.752
ZONE 14-9	0.25	0.36	-1.036	0.596
ZONE 2-1	0.20	0.31	-1.171	0.557
ZONE 2-10	-0.10	0.01	-4.605	0.100
ZONE 2-11	1.90	2.01	0.698	1.418
ZONE 2-12	0.60	0.71	-0.342	0.843
ZONE 2-13	4.00	4.11	1.413	2.027
ZONE 2-14	0.00	0.11	-2.207	0.332
ZONE 2-15	0.60	0.71	-0.342	0.843
ZONE 2-16	0.00	0.11	-2.207	0.332
ZONE 2-17	-0.10	0.01	-4.605	0.100
ZONE 2-18	-0.10	0.01	-4.605	0.100
ZONE 2-19	0.20	0.31	-1.171	0.557
ZONE 2-2	0.00	0.11	-2.207	0.332
ZONE 2-20	0.10	0.21	-1.561	0.458
ZONE 2-21	0.50	0.61	-0.494	0.781
ZONE 2-22	4.90	5.01	1.611	2.238
ZONE 2-23	2.90	3.01	1.102	1.735
ZONE 2-3	0.00	0.11	-2.207	0.332
ZONE 2-4	1.80	1.91	0.647	1.382
ZONE 2-5	-0.10	0.01	-4.605	0.100
ZONE 2-6	0.00	0.11	-2.207	0.332
ZONE 2-7	-0.10	0.01	-4.605	0.100
ZONE 2-8	0.10	0.21	-1.561	0.458
ZONE 2-9	4.80	4.91	1.591	2.216
ZONE 5-1	0.7	0.81	-0.211	0.900
ZONE 5-2	4.8	4.91	1.591	2.216
ZONE 5-3	1.1	1.21	0.191	1.100
ZONE 5-4	16	16.11	2.779	4.014
ZONE 5-5	0.7	0.81	-0.211	0.900
ZONE 5-6	3.1	3.21	1.166	1.792
ZONE 5-7	0.6	0.71	-0.342	0.843
ZONE 6-1	0.7	0.81	-0.211	0.900
ZONE 6-2	1.9	2.01	0.698	1.418
ZONE 6-4	7.2	7.31	1.989	2.704
ZONE 7-11	0.1	0.21	-1.561	0.458
ZONE 7-12	0.5	0.61	-0.494	0.781

Table B1.1-1. (continued).

Location	conc	conc+.11	ln(conc+.11)	sqrt(conc+.11)
ZONE 7-13	0	0.11	-2.207	0.332
ZONE 7-14	0.1	0.21	-1.561	0.458
ZONE 8-13	1.5	1.61	0.476	1.269
ZONE 8-14	1.8	1.91	0.647	1.382
ZONE 8-18	1.6	1.71	0.536	1.308
ZONE 8-19	2.3	2.41	0.880	1.552
ZONE 8-20	6.7	6.81	1.918	2.610
C-1	0.1	0.21	-1.561	0.458
C-2	0.1	0.21	-1.561	0.458
C-3	1.6	1.71	0.536	1.308
C-4	7.1	7.21	1.975	2.685
C-5	25.5	25.61	3.243	5.061
C-6	0.1	0.21	-1.561	0.458
C-7	3.7	3.81	1.338	1.952
C-8	60	60.11	4.096	7.753

Item 11 of EPA Comments

Department of Energy
Idaho Operations Office
1955 Fremont Avenue
Idaho Falls, Idaho 83401-1563

February 23, 2004

Mr. Nicholas Ceto, INEEL Project Manager
U.S. Environmental Protection Agency
Region X
712 Swift Blvd., Suite 5
Richland, WA 99352

Mr. Daryl F. Koch, Acting Remediation Manager
Waste Management and Remediation Division
Idaho Department of Environmental Quality
1410 North Hilton
Boise, Idaho 83706-1255

SUBJECT: TRANSMITTAL OF LIMITATIONS AND VALIDATION REPORT FOR INORGANIC AND MISCELLANEOUS CLASSICAL ANALYSIS OF SAMPLES COLLECTED IN SUPPORT OF THE WASTE AREA GROUP (WAG) 4, CENTRAL FACILITIES AREA-04 REMEDIAL ACTION CONFIRMATION SAMPLING (EM-ER-04-041)

Dear Mr. Ceto & Mr. Koch:

Copies of the limitations and validation (L&V) reports for the Central Facilities Area (CFA)-04 pond remedial action, conducted in 2003 at the Idaho National Engineering and Environmental Laboratory, are enclosed in accordance with Section 19.1 of the FFA/CO.

The reports cover the analyses of surface soil samples collected upon conclusion of excavation activities at the WAG 4, CFA-04 pond remedial action site. Surface soil samples 0 to 15 cm (0 to 6 in) were collected from eight randomly selected locations, based on a 7.6 × 7.6-m (25 × 25-ft) grid that was established over the CFA-04 area.

Included in this L&V transmittal are two reports for total mercury. Each of these data packages was validated to analytical method data validation level "B." No technical validation discrepancies were noted in the data package for SDG #4R400601HG; however; all analytical results in the data package for SDG #4R400101HG were qualified with an "R" validation flag due to poor laboratory duplicate sample results for mercury (52.5%). These results were outside the ±35% relative percent difference requirements outlined by technical proceedure-132.

As noted in the L&V report and cover letter, the primary reason for the "R" validation flag was due to the poor laboratory duplicate sample results, which are likely attributed to the

heterogeneity of the sample selected for this quality control measurement. Had the laboratory selected another sample, the outcome of the validation qualification could have been different. Despite the validation flag, all data are deemed usable.

If you have any questions or need further information please contact me at 208-526-4049.

Sincerely,

Carol A Hathaway

Carol A. Hathaway
Environmental Protection Specialist
Environmental Restoration Program

Cc/enc: K. Ivy, US EPA, Seattle, WA; 2 copies
C. Cody, IDHW DEQ; 2 copies

EXTERNAL bcc DISTRIBUTION:

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K. Hain (EM/ER), MS 1222, w/o enc. (y)
C. Hathaway (EM/ER), MS 1222, w/enc (w)

RECORD NOTES:

1. This letter was written to transmit Limitations And Validation Report For Inorganic And Miscellaneous Classical Analysis Of Samples Collected In Support Of The Waste Area Group (Wag) 4, Central Facilities Area-04 Remedial Action Confirmation Sampling For Operable Unit 4-13 to the Agencies.

2. C. Hathaway (EM/ER) wrote and signed this letter

3. This letter closes CATS number N/A.

4. The attached correspondence has no relation to the Naval Nuclear Propulsion Program. Naval Reactors concurrence is not required.

Attachment B1.2

INEEL Waste Determination and Disposition Forms

Attachment B1.2

435.39
03/03/2000
Rev. 04

INEEL WASTE DETERMINATION & DISPOSITION FORM (WDDF)

Pg 1 of 4

General Instructions: WORKING COPY ONLY

Waste Stream Name: Non-hazardous Soils from CFA-04 Pond **Material Profile Number:** 38096

WDDF Number (Optional): _____ Charge #: 100 315 471

Waste Stream Contacts											
Contact:	**Name**	**E-Mail**	**Phone**	**Pager**	**MS**	**Contact:**	**Name**	**E-Mail**	**Phone**	**Pager**	**MS**
Generator:	Deborah W. Wagoner	wigg	6-9989	7699	3950	Technical Specialist:	Charlyss D. Lee	leecd	6-3524	9049	4142
Facility Rep.:	Robert A. Lopez	rlz	6-8008	6403	4142	Independent Reviewer:	Mark V. Marchant	marchamv	6-1562	5095	8101

SECTION I: PROCESS KNOWLEDGE EVALUATION (Completed by the generator with assistance from the Facility Representative)

1. Waste Generation Location: Facility: CFA Building/Room: NA Area: WAG-4 If applicable: Container #: Type/size:

2. Process and Waste Description: (Attachment included: ☐ Yes ☒ No)
Soils generated from the remediation of CFA-04 pond. Mercury is the contaminant of concern for this area. These soils are from zones 11, 12, 13 and 14. Sampling of these soils gave a total mercury concentration of up to 77.1 mg/kg. Subsequent sampling for TCLP mercury did not exceed 50 ug/L. Therefore, these zones would not be considered hazardous for mercury. Radioisotopes are present at the normal INEEL background level and fall within the parameters defined in TPR-713.

3. Were any waste minimization activities a part of this process: ☒ Yes ☐ No (If Yes, provide description or reference.)
Sitewide waste minimization plan.

4. Generation Status: ☒ Anticipated ☐ Existing ☐ Routine operations ☒ Cleanup/Stabilization Activities ☒ One Time Only ☐ On-going ☐ Secondary

5. Other generation information: N/A

6. Physical Description (check all that apply): Color: ☒ Solid ☐ Organic Liquid ☐ Aqueous Liquid ☐ Sludge ☐ Aerosol ☐ Gas Cylinder ☐ Multi-Layered

7. Sources used for process evaluation (e.g. MSDS, operational logs, procedures, analyses): analytical data

8. Waste Characteristics: Note: The waste characteristics may not be known at time of initial determination. If required for treatment or characterization, those parameters will be identified at a later date.

Liquids		**Solids**		**All**	
a. pH (aqueous only): ☐ < 2 ☐ ≥ 12.5 ☐ > 2 or < 12.5 Exact	Method: ☒ NA	h. Asbestos: If yes, is it friable?	☐ Yes ☒ No ☐ NA ☐ Yes ☐ No ☒ NA	n. PCBs: If Yes, provide concentrations (actual & source) in composition table. PCBs Bulk Product? (40 CFR 761.62)?	☐ Yes ☒ No ☐ NA ☐ Yes ☐ No ☒ NA
b. Flash Point: ☒ NA	Method:	i. Pyrophoric (Water Reactive)	☐ Yes ☒ No ☐ NA	o. Sulfide ≥ 500 mg/kg	☐ Yes ☒ No ☐ NA
c. Total suspended solids <1%	☐ Yes ☐ No ☒ NA	j. Flammable Solid	☐ Yes ☒ No ☐ NA	p. Cyanide ≥ 250 mg/kg	☐ Yes ☒ No ☐ NA
d. Is total organic carbon <1%	☐ Yes ☐ No ☒ NA			q. Oxidizer	☐ Yes ☒ No ☐ NA
e. Fuming Acid/Acid Gases	☐ Yes ☐ No ☒ NA	k. Free liquids: If Yes, quantity volume %	☐ Yes ☒ No ☐ NA	r. Treatment Residue	☐ Yes ☒ No ☐ NA
f. Pyrophoric (Air Reactive)	☐ Yes ☐ No ☒ NA	l. RCRA Debris (>60 mm) (≥ 50% by visual inspection) or non-RCRA Rubble	☐ Yes ☒ No ☐ NA ☐ Yes ☐ No ☒ NA	s. Explosive	☐ Yes ☒ No ☐ NA
g. Water Reactive	☐ Yes ☐ No ☒ NA	m. Pyrophoric (Air Reactive)	☐ Yes ☒ No ☐ NA	t. Radioactive u. Halogens (Cl, F, Br)	☐ Yes ☒ No ☐ NA ☐ Yes ☒ No ☐ NA

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03/03/2000
Rev. 04

INEEL WASTE DETERMINATION & DISPOSITION FORM (WDDF)

Pg 2 of 4

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Waste Stream Name: Non-hazardous Soils from CFA-04 Pond **Material Profile Number:** 3809Q

9. Waste Composition: (Must total 100%). Attachment Included: ☐ Yes ☐ No ☒ NA

Constituent	CAS No.	Analysis or PK	Range (If constituent is <1%, use mg/kg or mg/L, otherwise report in %) From	To	Units	Used as a Solvent? (Y/N)	Comments
Soil		PK	100	100	%	N	

10. Radioisotopes: Are radioisotopes present? ☐ **Yes,** If Yes, refer to attachment ☒ **No,** If No, include signed form 435.02

SECTION II: PROBABLE WASTE TYPE: (Completed by the Facility Representative and used to assign waste technical specialist and for appropriate management until final waste determination is made.)

Based on evaluation of the process and available data the waste type indicated is (check all that apply):

☐ Hazardous Only	☐ Mixed	☐ Radioactive Only	☒ Conditional Industrial	☐ Used Oil
☐ Material Exchange	☐ Lab Pack	☐ Non-conditional Industrial	☐ TSCA	☐ Other – Describe:

☐ Recyclable: ☐ Non Radioactive Lead (>99+ % Lead) ☐ Lead Batteries ☐ Silver ☐ RCRA Scrap metal ☐ Other - Describe:

Indicated Waste Codes: None

CERTIFICATION

I certify that the information in Section I of this form and the applicable attachments are fully disclosed. A good faith effort has been put forward to acquire and verify the informatio Willful or deliberate omissions have not been made, and all known and suspected hazards have, to the best of my knowledge, been identified. The WGS Facility Representative, based on information provided, has assigned a probable waste type in Section II.

Deborah W. Wagoner
Generator Name Typed/Printed

Deborah W. Wagoner
Signature

4/24/2003
Date

Robert A. Lopez
WGS Facility Representative Name Typed/Printed

WGS Facility Representative Signature

4/24/2003
Date

Att-B1.2-4

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INEEL WASTE DETERMINATION & DISPOSITION FORM (WDDF)

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SECTION III WASTE DETERMINATION AND DISPOSITION (Completed by the WGS Technical Specialist)

A. Waste Determination

1. Is this a solid waste (per 40 CFR 261.2)? ☒ Yes ☐ No (If No, attach regulatory citation)

2. Is this a Hazardous Waste (per 40 CFR 261.3)? ☐ Yes ☒ No

3. Is waste excluded from regulation under 40 CFR 261.4? ☐ Yes ☒ No If Yes, Regulatory citation:

4. Is waste subject to 40 CFR 268 regulations? ☐ Yes ☒ No If Yes, is the waste a: ☐ Waste Water or ☐ Non Wastewater.
Is there a specified method of treatment? ☐ Yes ☒ No If Yes, list the specified method:

5. Is waste listed in Subpart D of 40 CFR 261? ☐ Yes ☒ No (If Yes, provide waste codes, regulated hazardous constituent(s), and an explanation of determination.)
Attachment Included: ☐ Yes ☒ No Codes:

6. Is waste characteristic per Subpart C of 40 CFR 261? ☐ Yes ☒ No (If Yes, provide waste codes, regulatory subcategory, and an explanation of determination.)
Attachment Included: ☐ Yes ☒ No Codes:

7. If hazardous, is the waste excluded for recycling in accordance with 40 CFR 261.2(e)(1)? ☐ Yes ☐ No If Yes, regulatory Citation: NA

8. Is the waste mixed or low level? ☐ Yes ☒ No (If Yes, include attachment with isotopic information.)

9. Is waste TSCA regulated for either of the following? PCBs: ☐ Yes ☒ No Asbestos: ☐ Yes ☒ No

B. Evaluation of Underlying Hazardous Constituents (UHCs)

Does the waste require evaluation in accordance with 40 CFR 268.48? ☐ Yes ☒ No (If Yes, identify UHCs.) UHCs: Attachment Included: ☐ Yes ☒ No

C. Disposition and Data Gap Evaluation: (Attachment Included: ☐ Yes ☒ No)

1. Proposed Disposition (storage, treatment, disposal pathway): CFA Landfill | STP ID (mixed only):

2. Will this waste be treated in a <90 storage area? ☐ Yes ☒ No (If Yes, attach plan.) (Mixed and Hazardous Only)

3. Is the information provided adequate for complete waste determination, management, transportation, treatment, and disposal of waste? ☒ Yes ☐ No If No, identify additional information or analysis required.

D. Verification requirements: (Attachments Included: ☐ Yes ☒ No)

1. Will verification be performed on this waste? ☒ Yes ☐ No If Yes, describe the verification to be performed. One time only.

At Initial Storage Location: ☒ Yes ☐ No | Immediately Prior to Shipment: ☐ Yes ☒ No

2. What is the verification frequency? NA

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E. Packaging and Transportation Requirements (to be completed by P&T): Complete this section only if wastes are to be transported.		
1. Is waste a DOT Regulated Hazardous Material? ☐ Yes ☒ No If Yes:	DOT Primary Hazard:	DOT Subsidiary Hazard:
2. Recommended Packaging:		
3. Probable Basic Description (PSN, Hazard Class, DOT ID #. PG):		
4. Other information (special shipping conditions, etc.):		
5. If containers are already generated, are they packaged correctly for the DOT hazard class? ☐ Yes ☐ No If No, list container required.		

Packaging & Transportation Name Typed/Printed	Packaging & Transportation Signature	Date

Summary of Waste Determination:	☐ Hazardous (see codes listed above)	☐ Mixed Low-Level (see codes listed above)	☐ Low-Level	☒ Conditional Industrial	☐ Other (describe)

CERTIFICATIONS

I certify that the information in Section III of this form and the applicable attachments are fully disclosed and accurate. A good faith effort has been put forward to acquire and verify the information. Willful or deliberate omissions have not been made, and all known and suspected hazards have, to the best of my knowledge, been identified.

Charlyss D. Lee WGS Technical Specialist Name Typed/Printed	Charlyss D. Lee WGS Technical Specialist Signature	4/30/03 Date
Mark V. Marchant WGS Independent Reviewer Name Typed/Printed	Mark V. Marchant WGS Independent Reviewer Signature	5-5-03 Date
Low Level Waste Hazardous Waste Determination Review Name Typed/Printed	Low Level Waste Hazardous Waste Determination Review Signature	Date

Additional Narrative Information (As Needed): Generation Rate is defined as "One-Time-Only", however, will require numerous bulk dump truck loads/trips to Landfill over a several week time period. LH Shepherd 5/7/03

Updated on 7/1/03 to include Zone 2A after analytical data received.
Clee 7/2/03

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INEEL WASTE DETERMINATION & DISPOSITION FORM (WDDF) WORKING COPY ONLY

General Instructions:

Waste Stream Name: MLLW Soils from CFA-04 Pond **Material Profile Number:** 3747Q

WDDF Number (Optional): _____ Charge #: _____

Waste Stream Contacts

Contact:	Name	E-Mail	Phone	Pager	MS	Contact:	Name	E-Mail	Phone	Pager	MS
Generator:	Deborah W. Wagoner	wigg	6-9989	7699	3950	Technical Specialist:	Charlyss D. Lee	leecd	6-9983	9049	4142
Facility Rep.:	Robert A. Lopez	rlz	6-8008	6403	4142	Independent Reviewer:	Mark V. Marchant	marchamv	6-1562	5095	8101

SECTION I: PROCESS KNOWLEDGE EVALUATION (Completed by the generator with assistance from the Facility Representative)

1. Waste Generation Location: Facility: CFA Building/Room: N/A Area: WAG-4 If applicable: Container #: Type/size:

2. Process and Waste Description: (Attachment Included: ☐ Yes ☒ No)
Soils generated from the remediation of CFA-04 pond. These soils are from zones 6a and 7a. These soils exceed the final remediation goal of 8.4 mg/kg and exceed the tclp level of 0.2 mg/L. The soils also contain trace amounts of radionuclides rendering the soils as MLLW.

3. Were any waste minimization activities a part of this process: ☒ Yes ☐ No (If Yes, provide description or reference.)
Sitewide waste minimization plan

4. Generation Status: ☒ Anticipated ☐ Existing ☐ Routine operations ☒ Cleanup/Stabilization Activities ☒ One Time Only ☐ On-going ☐ Secondary

5. Other generation information: N/A

6. Physical Description (check all that apply): Color: ☒ Solid ☐ Organic Liquid ☐ Aqueous Liquid ☐ Sludge ☐ Aerosol ☐ Gas Cylinder ☐ Multi-Layered

7. Sources used for process evaluation (e.g. MSDS, operational logs, procedures, analyses): analytical

8. Waste Characteristics: Note: The waste characteristics may not be known at time of initial determination. If required for treatment or characterization, those parameters will be identified at a later date.

Liquids		Solids		All	
a. pH (aqueous only): ☐ < 2 ☐ ≥ 12.5 ☐ > 2 or < 12.5 Exact	Method: ☒ NA	h. Asbestos:	☐ Yes ☒ No ☐ NA	n. PCBs: If Yes, provide concentrations (actual & source) in composition table.	☐ Yes ☒ No ☐ NA
		If yes, is it friable?	☐ Yes ☐ No ☒ NA	PCBs Bulk Product? (40 CFR 761.62)?	☐ Yes ☒ No ☐ NA
b. Flash Point: ☒ NA	Method:	i. Pyrophoric (Water Reactive)	☐ Yes ☒ No ☐ NA	o. Sulfide ≥ 500 mg/kg	☐ Yes ☒ No ☐ NA
c. Total suspended solids <1%	☐ Yes ☐ No ☒ NA	j. Flammable Solid	☐ Yes ☒ No ☐ NA	p. Cyanide ≥ 250 mg/kg	☐ Yes ☒ No ☐ NA
d. Is total organic carbon <1%	☐ Yes ☐ No ☒ NA			q. Oxidizer	☐ Yes ☒ No ☐ NA
e. Fuming Acid/Acid Gases	☐ Yes ☐ No ☒ NA	k. Free liquids: If Yes, quantity volume %	☐ Yes ☒ No ☐ NA	r. Treatment Residue	☐ Yes ☒ No ☐ NA
f. Pyrophoric (Air Reactive)	☐ Yes ☐ No ☒ NA	l. RCRA Debris (>60 mm) (≥ 50% by visual inspection) or	☐ Yes ☒ No ☐ NA	s. Explosive	☐ Yes ☒ No ☐ NA
		non-RCRA Rubble	☐ Yes ☒ No ☐ NA	t. Radioactive	☒ Yes ☐ No ☐ NA
g. Water Reactive	☐ Yes ☐ No ☒ NA	m. Pyrophoric (Air Reactive)	☐ Yes ☒ No ☐ NA	u. Halogens (Cl, F, Br)	☐ Yes ☒ No ☐ NA

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Waste Stream Name: MLLW Soils from CFA-04 Pond

Material Profile Number: 3747Q

9. Waste Composition: (Must total 100%). Attachment Included: ☐ Yes ☒ No ☐ NA

Constituent	CAS No.	Analysis or PK	Range (If constituent is <1%, use mg/kg or mg/L, otherwise report in %) From	To	Units	Used as a Solvent? (Y/N)	Comments
soil		pk	100	100	%	N	

10. Radioisotopes: Are radioisotopes present? ☒ **Yes**, If Yes, refer to attachment ☐ **No**, If No, include signed form 435.02

SECTION II: PROBABLE WASTE TYPE: (Completed by the Facility Representative and used to assign waste technical specialist and for appropriate management until final waste determination is made.)

Based on evaluation of the process and available data the waste type indicated is (check all that apply):

☐ Hazardous Only	☒ Mixed	☐ Radioactive Only	☐ Conditional Industrial	☐ Used Oil
☐ Material Exchange	☐ Lab Pack	☐ Non-conditional Industrial	☐ TSCA	☐ Other – Describe:

☐ Recyclable: ☐ Non Radioactive Lead (>99+ % Lead) ☐ Lead Batteries ☐ Silver ☐ RCRA Scrap metal ☐ Other - Describe:

Indicated Waste Codes: D009

CERTIFICATION

I certify that the information in Section I of this form and the applicable attachments are fully disclosed. A good faith effort has been put forward to acquire and verify the information. Willful or deliberate omissions have not been made, and all known and suspected hazards have, to the best of my knowledge, been identified. The WGS Facility Representative, based on information provided, has assigned a probable waste type in Section II.

Deborah W. Wagoner — Generator Name Typed/Printed — Signature — 4/23/2003 Date

Robert A. Lopez — WGS Facility Representative Name Typed/Printed — WGS Facility Representative Signature — 4/23/2003 Date

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INEEL WASTE DETERMINATION & DISPOSITION FORM (WDDF) WORKING COPY ONLY

SECTION III WASTE DETERMINATION AND DISPOSITION (Completed by the WGS Technical Specialist)

A. Waste Determination

1. Is this a solid waste (per 40 CFR 261.2)? ☑ Yes ☐ No (If No, attach regulatory citation)

2. Is this a Hazardous Waste (per 40 CFR 261.3)? ☑ Yes ☐ No

3. Is waste excluded from regulation under 40 CFR 261.4? ☐ Yes ☑ No If Yes, Regulatory citation:

4. Is waste subject to 40 CFR 268 regulations? ☐ Yes ☑ No If Yes, is the waste a: ☐ Waste Water or ☑ Non Wastewater.
Is there a specified method of treatment? ☐ Yes ☑ No If Yes, list the specified method: Alternative LDR treatment stds 268.49

5. Is waste listed in Subpart D of 40 CFR 261? ☐ Yes ☑ No (If Yes, provide waste codes, regulated hazardous constituent(s), and an explanation of determination.)
Attachment Included: ☐ Yes ☑ No Codes:

6. Is waste characteristic per Subpart C of 40 CFR 261? ☑ Yes ☐ No (If Yes, provide waste codes, regulatory subcategory, and an explanation of determination.)
Attachment Included: ☐ Yes ☑ No Codes: D009

7. If hazardous, is the waste excluded for recycling in accordance with 40 CFR 261.2(e)(1)? ☐ Yes ☑ No If Yes, regulatory Citation:

8. Is the waste mixed or low level? ☑ Yes ☐ No (If Yes, include attachment with isotopic information.)

9. Is waste TSCA regulated for either of the following? PCBs: ☐ Yes ☑ No Asbestos: ☐ Yes ☑ No

B. Evaluation of Underlying Hazardous Constituents (UHCs)

Does the waste require evaluation in accordance with 40 CFR 268.48? ☑ Yes ☐ No (If Yes, identify UHCs.) UHCs: None identified Attachment Included: ☐ Yes ☐ No

C. Disposition and Data Gap Evaluation: (Attachment Included: ☐ Yes ☑ No)

1. Proposed Disposition (storage, treatment, disposal pathway): Treatment and disposal at ICDF | STP ID (mixed only): ID-CERCLA-MW

2. Will this waste be treated in a <90 storage area? ☐ Yes ☑ No (If Yes, attach plan.) (Mixed and Hazardous Only)

3. Is the information provided adequate for complete waste determination, management, transportation, treatment, and disposal of waste? ☑ Yes ☐ No If No, identify additional information or analysis required.

D. Verification requirements: (Attachments Included: ☐ Yes ☑ No)

1. Will verification be performed on this waste? ☐ Yes ☑ No If Yes, describe the verification to be performed.

At Initial Storage Location: ☐ Yes ☑ No | Immediately Prior to Shipment: ☐ Yes ☑ No

2. What is the verification frequency? NA

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E. Packaging and Transportation Requirements (to be completed by P&T): Complete this section only if wastes are to be transported.
1. Is waste a DOT Regulated Hazardous Material? ☑ Yes ☐ No If Yes: DOT Primary Hazard: DOT Subsidiary Hazard:
2. Recommended Packaging:
3. Probable Basic Description (PSN, Hazard Class, DOT ID #, PG):
4. Other information (special shipping conditions, etc.):
5. If containers are already generated, are they packaged correctly for the DOT hazard class? ☐ Yes ☐ No If No, list container required.

Packaging & Transportation Name Typed/Printed	Packaging & Transportation Signature	Date

Summary of Waste Determination:	☐ Hazardous (see codes listed above)	☑ Mixed Low-Level (see codes listed above)	☐ Low-Level	☐ Conditional Industrial	☐ Other (describe)

CERTIFICATIONS

I certify that the information in Section III of this form and the applicable attachments are fully disclosed and accurate. A good faith effort has been put forward to acquire and verify the information. Willful or deliberate omissions have not been made, and all known and suspected hazards have, to the best of my knowledge, been identified.

Charlyss D. Lee WGS Technical Specialist Name Typed/Printed	Charlyn D. Lee WGS Technical Specialist Signature	4/30/03 Date
Mark V Marchant WGS Independent Reviewer Name Typed/Printed	 WGS Independent Reviewer Signature	5-6-03 Date
Low Level Waste Hazardous Waste Determination Review Name Typed/Printed	Low Level Waste Hazardous Waste Determination Review Signature	Date

Additional Narrative Information (As Needed):

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INEEL WASTE DETERMINATION & DISPOSITION FORM (WDDF)

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General Instructions:

Waste Stream Name: LLW Soils from CFA-04 Pond **Material Profile Number:** 3746Q

WDDF Number (Optional): _____ Charge #: _____

Waste Stream Contacts

Contact:	Name	E-Mail	Phone	Pager	MS	Contact:	Name	E-Mail	Phone	Pager	MS
Generator:	Deborah W. Wagoner	wigg	6-9989	7699	3950	Technical Specialist:	Charlyss D. Lee	leecd	6-9983	9049	4142
Facility Rep.:	Robert A. Lopez	rlz	6-8008	6403	4142	Independent Reviewer:	Mark V. Marchant	marchamv	6-1562	5095	8101

SECTION I: PROCESS KNOWLEDGE EVALUATION (Completed by the generator with assistance from the Facility Representative)

1. Waste Generation Location: Facility: CFA Building/Room: N/A Area: WAG-4 If applicable: Container #: Type/size:

2. Process and Waste Description: (Attachment Included: ☐ Yes ☒ No)
Soils generated from the remediation of CFA-04 pond. These soils are from zones 5, 6, 7, and 8 excluding the zones 6a and 7a. These soils exceed the final remediation goal of 8.4 mg/kg but do not exceed the tclp level of 0.2 mg/L. The soils also contain trace amounts of radionuclides rendering the soils as LLW.

3. Were any waste minimization activities a part of this process: ☒ Yes ☐ No (If Yes, provide description or reference.)
Sitewide waste minimization plan

4. Generation Status: ☒ Anticipated ☐ Existing ☐ Routine operations ☒ Cleanup/Stabilization Activities ☒ One Time Only ☐ On-going ☐ Secondary

5. Other generation information: N/A

6. Physical Description (check all that apply): Color: ☒ Solid ☐ Organic Liquid ☐ Aqueous Liquid ☐ Sludge ☐ Aerosol ☐ Gas Cylinder ☐ Multi-Layered

7. Sources used for process evaluation (e.g. MSDS, operational logs, procedures, analyses): analytical

8. Waste Characteristics: Note: The waste characteristics may not be known at time of initial determination. If required for treatment or characterization, those parameters will be identified at a later date.

Liquids		Solids		All	
a. pH (aqueous only): ☐ < 2 ☐ ≥ 12.5 ☐ > 2 or < 12.5 Exact	Method: ☒ NA	h. Asbestos: If yes, is it friable?	☐ Yes ☒ No ☐ NA ☐ Yes ☐ No ☒ NA	n. PCBs: If Yes, provide concentrations (actual & source) in composition table. PCBs Bulk Product? (40 CFR 761.62)?	☐ Yes ☒ No ☐ NA ☐ Yes ☒ No ☐ NA
b. Flash Point: ☒ NA	Method:	i. Pyrophoric (Water Reactive)	☐ Yes ☒ No ☐ NA	o. Sulfide ≥ 500 mg/kg	☐ Yes ☒ No ☐ NA
c. Total suspended solids <1%	☐ Yes ☐ No ☒ NA	j. Flammable Solid	☐ Yes ☒ No ☐ NA	p. Cyanide ≥ 250 mg/kg	☐ Yes ☒ No ☐ NA
d. Is total organic carbon <1%	☐ Yes ☐ No ☒ NA			q. Oxidizer	☐ Yes ☒ No ☐ NA
e. Fuming Acid/Acid Gases	☐ Yes ☐ No ☒ NA	k. Free liquids: If Yes, quantity volume %	☐ Yes ☒ No ☐ NA	r. Treatment Residue	☐ Yes ☒ No ☐ NA
f. Pyrophoric (Air Reactive)	☐ Yes ☐ No ☒ NA	l. RCRA Debris (>60 mm) (≥ 50% by visual inspection) or non-RCRA Rubble	☐ Yes ☒ No ☐ NA ☐ Yes ☒ No ☐ NA	s. Explosive t. Radioactive	☐ Yes ☒ No ☐ NA ☒ Yes ☐ No ☐ NA
g. Water Reactive	☐ Yes ☐ No ☒ NA	m. Pyrophoric (Air Reactive)	☐ Yes ☒ No ☐ NA	u. Halogens (Cl, F, Br)	☐ Yes ☒ No ☐ NA

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INEEL WASTE DETERMINATION & DISPOSITION FORM (WDDF)

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Waste Stream Name: LLW Soils from CFA-04 Pond **Material Profile Number:** 27480

9. Waste Composition: (Must total 100%). Attachment Included: ☐ Yes ☒ No ☐ NA

Constituent	CAS No.	Analysis or PK	Range (If constituent is <1%, use mg/kg or mg/L, otherwise report in %) From	To	Units	Used as a Solvent? (Y/N)	Comments
soil		pk	100	100	%	N	

10. Radioisotopes: Are radioisotopes present? ☒ **Yes,** If Yes, refer to attachment ☐ **No,** If No, include signed form 435.02

SECTION II: PROBABLE WASTE TYPE: (Completed by the Facility Representative and used to assign waste technical specialist and for appropriate management until final waste determination is made.)

Based on evaluation of the process and available data the waste type indicated is (check all that apply):

☐ Hazardous Only	☐ Mixed	☒ Radioactive Only	☐ Conditional Industrial	☐ Used Oil
☐ Material Exchange	☐ Lab Pack	☐ Non-conditional Industrial	☐ TSCA	☐ Other – Describe:

☐ Recyclable: ☐ Non Radioactive Lead (>99+ % Lead) ☐ Lead Batteries ☐ Silver ☐ RCRA Scrap metal ☐ Other - Describe:

Indicated Waste Codes: N/A

CERTIFICATION

I certify that the information in Section I of this form and the applicable attachments are fully disclosed. A good faith effort has been put forward to acquire and verify the information. Willful or deliberate omissions have not been made, and all known and suspected hazards have, to the best of my knowledge, been identified. The WGS Facility Representative, based on information provided, has assigned a probable waste type in Section II.

Deborah W. Wagoner — Generator Name Typed/Printed — Signature — 4/23/2003 Date

Robert A. Lopez — WGS Facility Representative Name Typed/Printed — WGS Facility Representative Signature — 4/23/2003 Date

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03/03/2000
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INEEL WASTE DETERMINATION & DISPOSITION FORM (WDDF)

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SECTION III WASTE DETERMINATION AND DISPOSITION (Completed by the WGS Technical Specialist)

A. Waste Determination

1. Is this a solid waste (per 40 CFR 261.2)? ☑ Yes ☐ No (If No, attach regulatory citation)

2. Is this a Hazardous Waste (per 40 CFR 261.3)? ☐ Yes ☑ No

3. Is waste excluded from regulation under 40 CFR 261.4? ☐ Yes ☑ No If Yes, Regulatory citation:

4. Is waste subject to 40 CFR 268 regulations? ☐ Yes ☑ No If Yes, is the waste a: ☐ Waste Water or ☐ Non Wastewater.
Is there a specified method of treatment? ☐ Yes ☐ No If Yes, list the specified method:

5. Is waste listed in Subpart D of 40 CFR 261? ☐ Yes ☑ No (If Yes, provide waste codes, regulated hazardous constituent(s), and an explanation of determination.)
Attachment Included: ☐ Yes ☑ No Codes:

6. Is waste characteristic per Subpart C of 40 CFR 261? ☐ Yes ☑ No (If Yes, provide waste codes, regulatory subcategory, and an explanation of determination.)
Attachment Included: ☐ Yes ☑ No Codes:

7. If hazardous, is the waste excluded for recycling in accordance with 40 CFR 261.2(e)(1)? ☐ Yes ☐ No If Yes, regulatory Citation: NA

8. Is the waste mixed or low level? ☑ Yes ☐ No (If Yes, include attachment with isotopic information.)

9. Is waste TSCA regulated for either of the following? PCBs: ☐ Yes ☑ No Asbestos: ☐ Yes ☑ No

B. Evaluation of Underlying Hazardous Constituents (UHCs)

Does the waste require evaluation in accordance with 40 CFR 268.48? ☐ Yes ☑ No (If Yes, identify UHCs.) UHCs: Attachment Included: ☐ Yes ☐ No

C. Disposition and Data Gap Evaluation: (Attachment Included: ☐ Yes ☑ No)

1. Proposed Disposition (storage, treatment, disposal pathway): Disposal at ICDF | STP ID (mixed only):

2. Will this waste be treated in a <90 storage area? ☐ Yes ☑ No (If Yes, attach plan.) (Mixed and Hazardous Only)

3. Is the information provided adequate for complete waste determination, management, transportation, treatment, and disposal of waste? ☑ Yes ☐ No If No, identify additional information or analysis required.

D. Verification requirements: (Attachments Included: ☐ Yes ☑ No)

1. Will verification be performed on this waste? ☐ Yes ☑ No If Yes, describe the verification to be performed.

At Initial Storage Location: ☐ Yes ☑ No | Immediately Prior to Shipment: ☐ Yes ☑ No

2. What is the verification frequency? NA

Attachment B2

Summary of CFA-04 Prefinal Inspection

Attachment B2

Summary of CFA-04 Prefinal Inspection

October 16, 2003, 2 PM

Wayne Pierre	EPA	Ted Livieratos	DEQ
Mark Shaw	DOE	Doug Jorgensen	BBWI
Scott Reno	BBWI	Deborah Wagoner	BBWI
John Giles	BBWI		

Action Items:

1. BBWI will provide survey results on area in Zone 6 near Sampling Point 6-3. EPA did not believe that the excavated area is 10 ft deep or at basalt. EPA said that this is a quality assurance check on how the excavation went.

2. BBWI will email photos to EPA and DEQ that were taken during the inspection.

3. BBWI will provide a printout of the last calibration of the field Atomic Absorption (AA) instrument.

The above participants walked the excavated CFA-04 mercury pond after mercury-contaminated soil and asbestos-containing material were removed per the RD/RA Work Plan[a]. Eleven pictures were taken during the inspection, and one picture of the AA that was taken yesterday can be used for the record of the inspection.

EPA said that the response to the action items would complete the prefinal inspection.

Questions were answered as follows:

- BBWI explained that samples were taken below the pipe and inside the pipe.

- BBWI explained that the last asbestos was removed from the southwest corner of the pond today (10-16-03).

- BBWI explained that the orange on the sidewall marked where a sample had been taken to determine the lateral extent of the contamination.

- BBWI said that a suitability determination was in the files for the asbestos that was disposed of at the CFA Landfills in response to EPA's question.

- BBWI pointed out that the south side of the pond was excavated and hauled to the CFA Landfills because it was nonradioactive. The north side soil was slightly radioactive and was hauled to the ICDF. This was in response to DEQ's questions.

---

a. DOE-ID, 2003, *Waste Area Group 4 Remedial Design/Remedial Action Work Plan, CFA-04 Pond Mercury-Contaminated Soils, Operable Unit 4-13,* DOE/ID-11028, Rev. 0, February 2003.

- BBWI explained that turnaround on sample analysis was very quick. EPA pointed out that the field samples were opportunity-biased samples, not random samples. BBWI indicated that the QC samples were taken randomly per the procedure in the Field Sampling Plan.[b]

- BBWI pointed out that the effluent line came from Building CFA-674, located across the parking lot to the north.

- BBWI explained that laboratory safety is covered by a Job Safety Analysis. Calibration of the field AA is done daily, and analysis was done per the procedures in the instrument operating manual.

- BBWI explained that there was no maintenance log and that the AA was sent to the manufacturer for cleaning prior to use on the CFA-04 remedial action.

b. DOE-ID, 2003, *Field Sampling Plan for the Central Facilities Area-04 Pond Remedial Action,* DOE/ID-11024, Rev. 0, February 2003.

Attachment B3

Responses to EPA/DEQ Requests for Information during the Prefinal Inspection

Attachment B3.1

Logbook Entry

10/6/03 Cont.

12:38 Loading Truck 3440/3465, ICDF04030375.

12:52 ICDF04030375 loaded; sent for taping.
—1/2 load left @ Zone 8, moving to NW area of Zone 8 to remove soil to basalt. Rolling them make road, will haul w/ loader to South of Zone 7 for loading.

13:11 Loading Truck 3441/can 3446, ICDF04030376. Using loader & excavator. Excavator is cleaning material down to rock & 1' along bank. Loader is loading Truck.

3:36 ICDF04030376 loaded; sent for taping.
Continuing to load using loader/excavator. Loading Truck 3442/can 3447/ICDF04030377

4:02 Loading Truck 3440/3465 ICDF04030378

4:15 ICDF04030377; 378 loaded; sent for taping.

14:29 Loading Truck 3441/can 3446, ICDF04030379.
Note: Completed all of Zone 8, 7, & walking in two small areas in 6. Awaiting confirmation sampling in those areas. Removed soil to basalt in 8-16 & small amount from back of Zone 7

4:45 ICDF04030379 loaded; sent for taping. Removed soil to basalt in 6-3.
—Moving to south of Zone 5. Will remove 2-3' on north boundary. Removed small amount for Sample area 6-2. Resample.
—Mixing soil w/ water in Zone 5 north boundary.

5:15 Loading Truck 3442/can 3447, ICDF04030380
—Trucks loaded before lunch: 7
—Trucks loaded to ICDF: 13

5:20 —Water truck is empty, waiting for it to return.

5:47 ICDF04030380 loaded; sent for taping.

5:49 Loading Truck 3440/can 3465, ICDF04030381

5:55 ICDF04030381 loaded. Sent for taping

5:58 Loading truck 3441/can 3446, ICDF04030382.

6:05 ICDF04030382 loaded; sent for taping.
16 Total loads sent to ICDF, 3 asbestos boxes awaiting transport. 310 Tons to day.

Attachment B3.2

Prefinal Inspection Pictures

Figure B3.2-1. Looking west at profile of asbestos material adjacent to Zone 8.

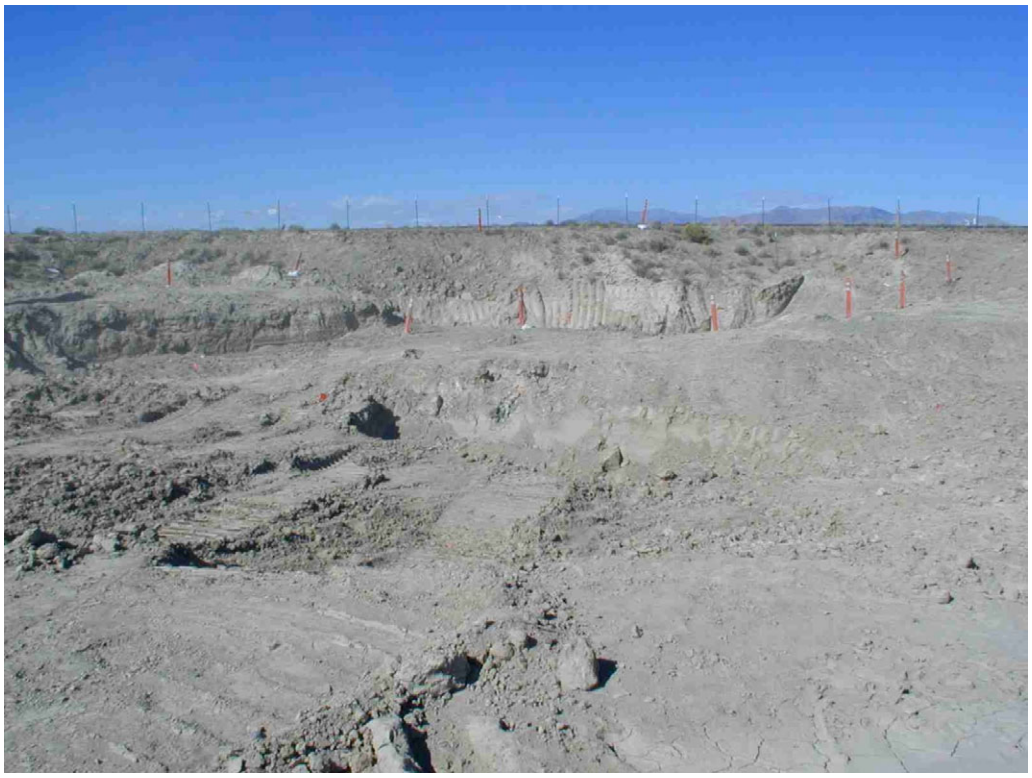

Figure B3.2-2. Looking northwest at Zone 8.

Figure B3.2-3. Looking east across basalt dome in Zone 7.

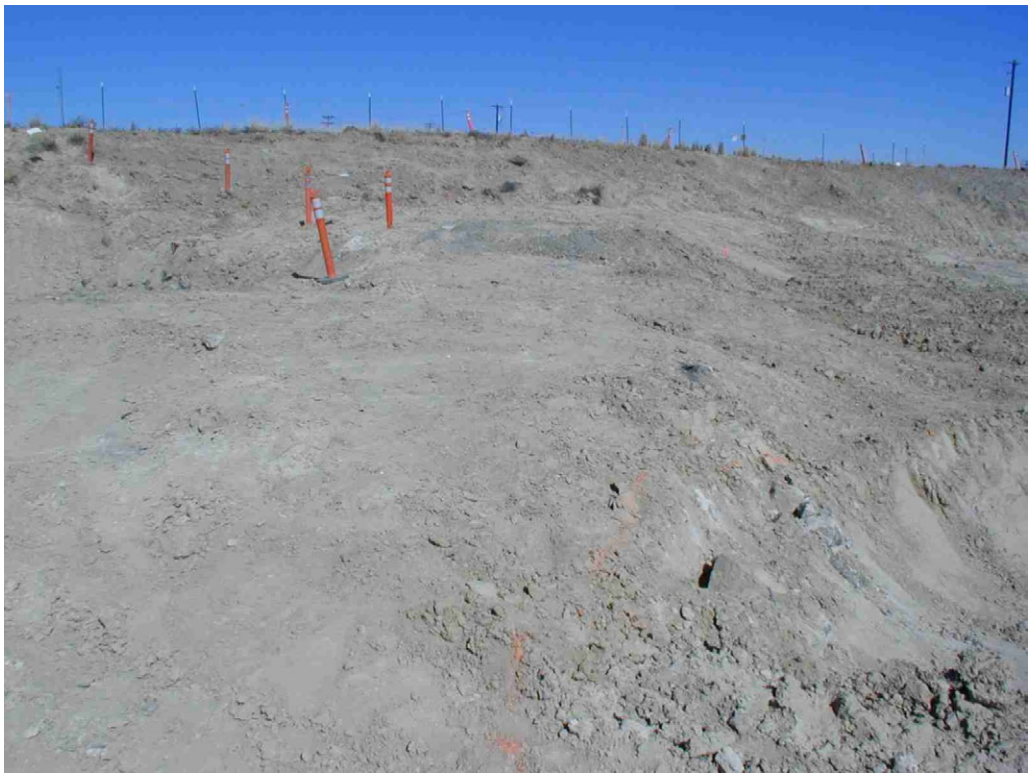

Figure B3.2-4. Looking east along basalt ridge in Zone 8.

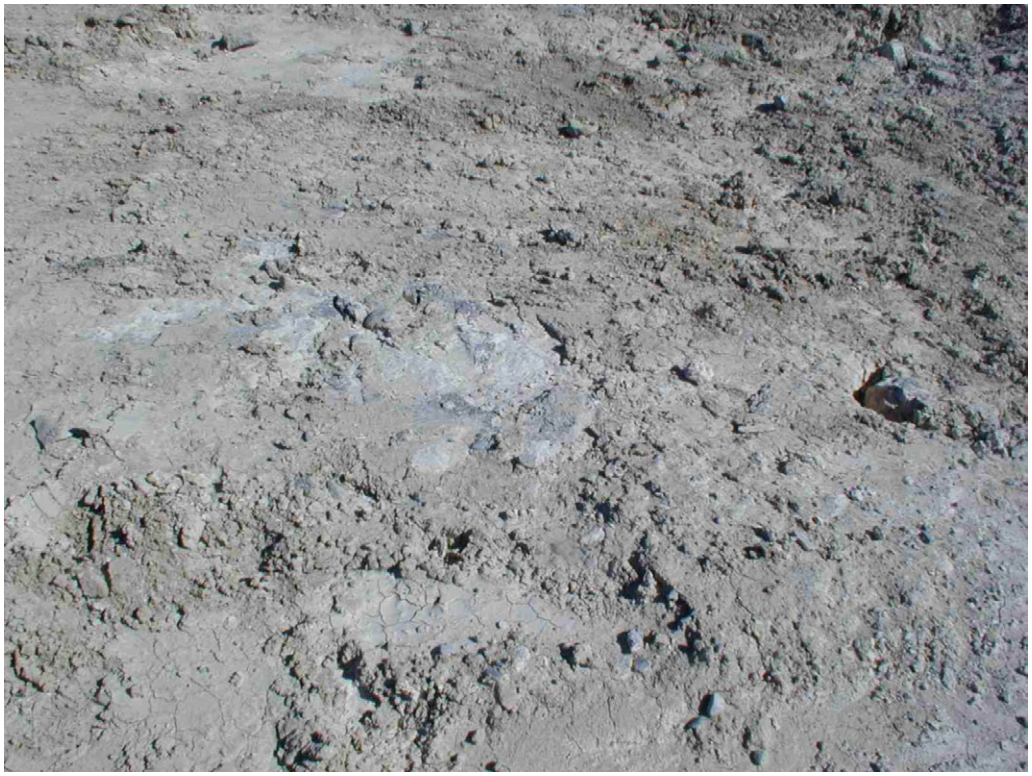

Figure B3.2-5. Exposed basalt on top of dome in Zone 7.

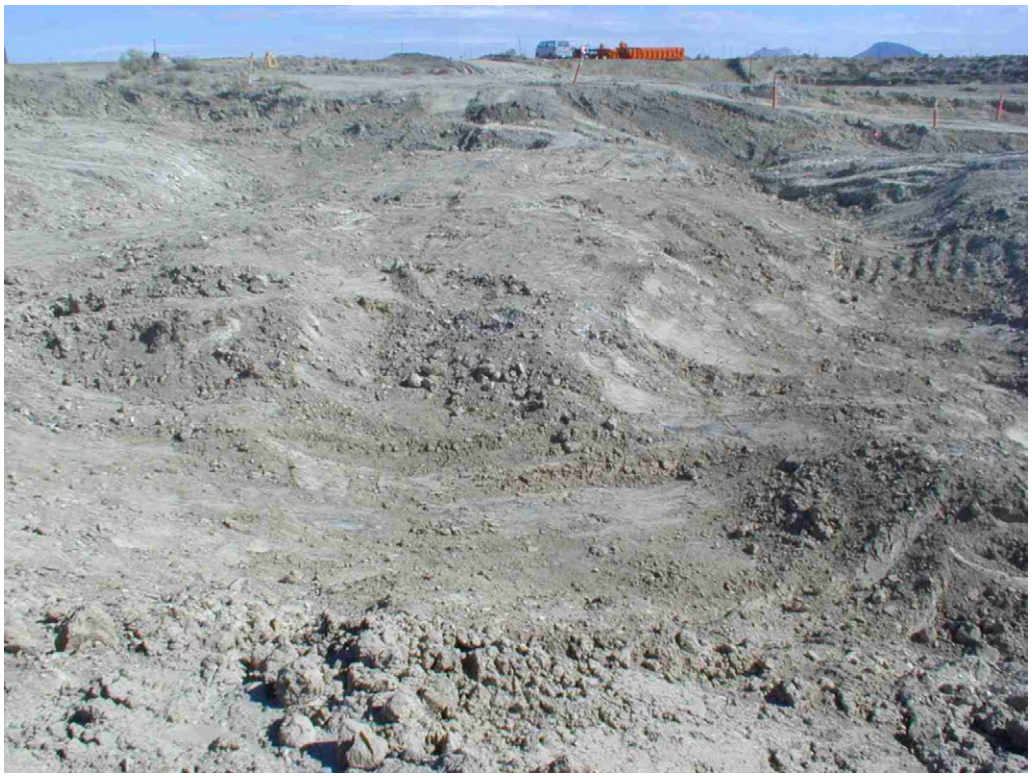

Figure B3.2-6. Looking east from Zone 7 across Zone 6.

Figure B3.2-7. Exposed basalt profile on north boundary of Zone 6.

Figure B3.2-8. Looking north along Zone 5 with building CF-674 in background.

Figure B3.2-9. Piece of clay inlet pipe with gray residue.

Figure B3.2-10. Looking from Zone 11 into Zones 13 and 14.

Figure B3.2-11. Looking northeast at basalt ridge and rubble in Zones 13 and 14.

Figure B3.2-12. Looking northwest at pond inlet with building CF-674 in background.

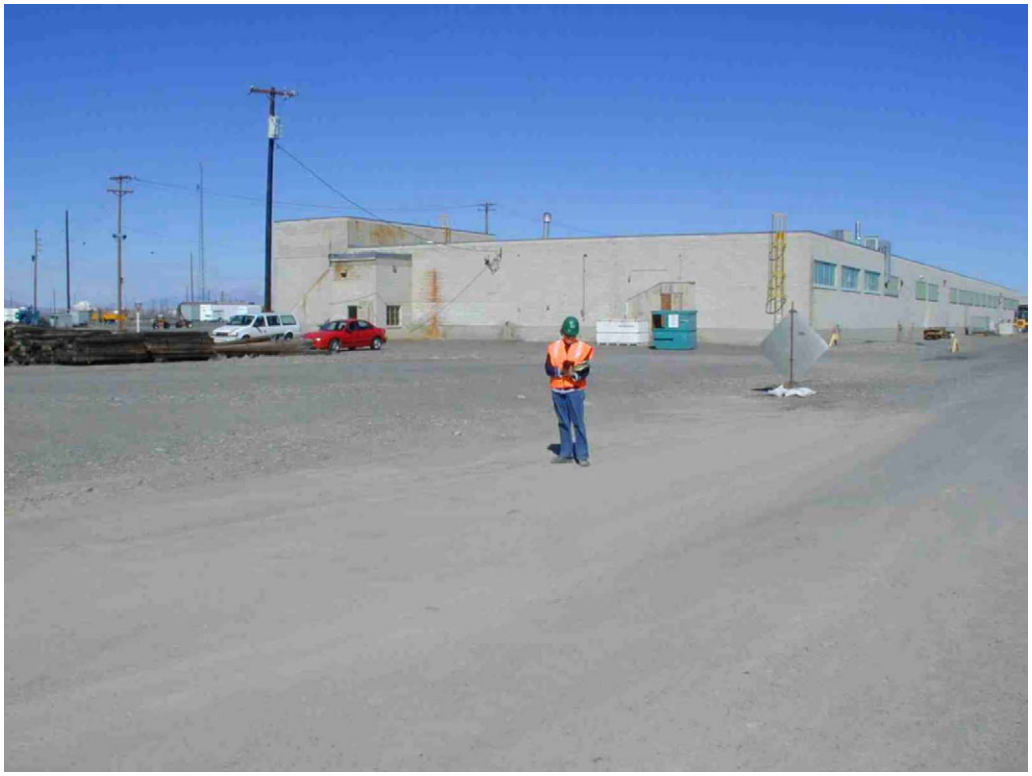

Figure B3.2-13. Building CF-674 with road and parking area in foreground.

Figure B3.2-14. Asbestos material removal in area adjacent to Zone 8.

Attachment B3.3

Field Analyzer Calibration

Attachment B3.3

Field Analyzer Calibration

No	Description	M, mg	Mass Hg, mg	C, mg/kg	Area	Maximum	Time
3	Std__6.25	61	0.000381250	6.8	156000	15500	1:18:11 PM
4	Std__6.25	27	0.000168750	5.5	56400	10300	1:21:59 PM
5	Std__6.25	172	0.001075000	6.1	396000	37600	1:25:40 PM
6	Std__6.25	98	0.000612500	6.5	242000	32900	1:30:49 PM

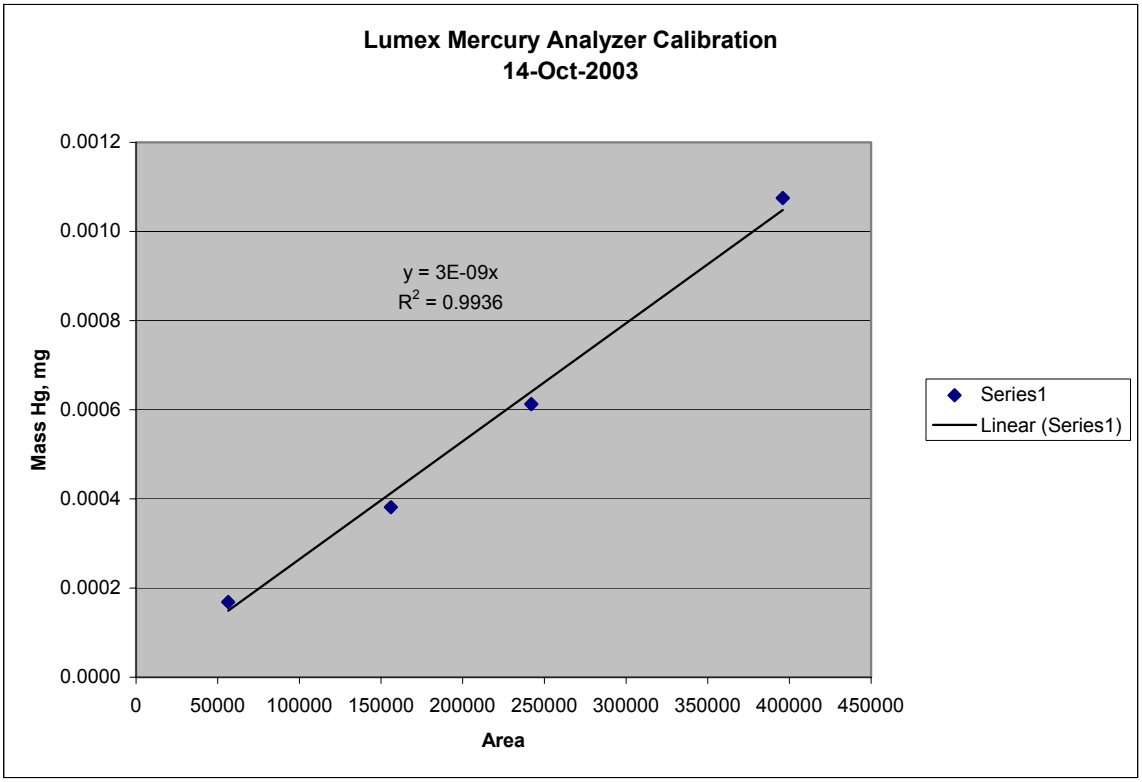

Figure B3.3-1. Lumex Mercury Analyzer calibration.

Attachment B4

Pictures of Sample Point 6-3 Excavation

Attachment B4.1

Pictures of Sample Point 6-3 Prior to Excavation

Attachment B4.1

Pictures of Sample Point 6-3 Prior to Excavation

Attachment B4.2

Pictures of Sample Point 6-3 After Excavation

Attachment B4.2

Pictures of Sample Point 6-3 After Excavation